COMPLETE LISTING OF ALL CLAIMS, WITH MARKINGS AND STATUS IDENTIFIERS

(Amendments are illustrated by showing deletions ~~by strikethrough~~ and additions by underlining)

15. (currently amended) A method for isolating a nucleic acid from a biological sample comprising the steps of:

(a) providing an extraction buffer comprising a phenol-neutralizing substance, wherein said extraction buffer

(i) has a pH from ~~about 2 to about 8~~ 3 to 7, and

(ii) has a salt concentration of at least about 100 mM;

(b) contacting said extraction buffer with a biological sample containing nucleic acid, and contacting said biological sample with an adsorption matrix; and

(c) isolating said nucleic acid from said adsorption matrix.

16. (previously presented) The method of claim 15, wherein said extraction buffer has a pH from about 4 to about 6.5.

17. (previously presented) The method of claim 15, wherein said extraction buffer comprises at least one salt from the group consisting of KCl and NaCl.

18. (previously presented) The method of claim 15, wherein said phenol-neutralizing substance comprises at least about 0.5% polyvinylpyrrolidone.

19. (previously presented) The method of claim 15, wherein said adsorption matrix comprises an insoluble carbohydrate.

20. (previously presented) The method of claim 19, wherein said adsorption matrix comprises a component of potato flour.

21. (previously presented) The method of claim 15, wherein said biological sample comprises fecal material.

22. (previously presented) The method of claim 15, wherein said extraction buffer is incubated with said biological sample before contacting said extraction buffer and said biological sample with said adsorption matrix.

23. (previously presented) The method of claim 22, wherein said incubation occurs at a temperature of less than or equal to about 10°C.

24. (previously presented) The method of claim 22, wherein said incubation comprises at least one treatment regime selected from the group consisting of chemical treatment, thermal treatment, and enzymatic treatment.

25. (previously presented) The method of claim 22, wherein said incubation occurs at a temperature of greater than or equal to about 50°C.

26. (previously presented) The method of claim 15, wherein contacting said biological sample with said adsorption matrix occurs under at least one physical condition selected from the group consisting of centrifugation, reduced pressure, and gravity.

27. (previously presented) The method of claim 24, wherein contacting said biological sample with said adsorption matrix occurs under at least one physical condition selected from the group consisting of centrifugation, reduced pressure, and gravity.

28. (currently amended) An extraction buffer useful to isolate a nucleic acid from a biological sample comprising a phenol-neutralizing substance, wherein said extraction buffer
(i) has a pH from ~~about 2 to about 8~~ 3 to 7, and
(ii) has a salt concentration of at least about 100 mM.

29. (previously presented) The extraction buffer of claim 28, wherein said extraction buffer has a pH from about 4 to about 6.5.

30. (previously presented) The extraction buffer of claim 28, wherein said extraction buffer comprises at least one salt from the group consisting of KCl and NaCl.

31. (previously presented) The extraction buffer of claim 28, wherein said phenol-neutralizing substance comprises at least about 0.5% polyvinylpyrrolidone.

32. (previously presented) A kit for isolating a nucleic acid from a biological sample comprising:
(a) an extraction buffer according to any one of claims 28-31, and
(b) an adsorption matrix.

33. (previously presented) The kit of claim 32, wherein said adsorption matrix comprises an insoluble carbohydrate.

34. (previously presented) The kit of claim 33, wherein said adsorption matrix comprises a component of potato flour.